Title (en)
   LOW-FREQUENCY DIAPHRAGM SPEAKER

Title (de)
   TIEFTON-MEMBRANLAUTSPRECHER

Title (fr)
   HAUT-PARLEUR A MEMBRANE DE GRAVES

Publication
   EP 1142445 B1 20021023 (DE)

Application
   EP 99967891 A 19991221

Priority
   • DE 9904073 W 19991221
   • DE 19859046 A 19981221

Abstract (en)
   [origin: WO0038474A2] The invention relates to a low-frequency diaphragm speaker comprising a housing (10) whose sides (13, 14, 15) enclose a space (25) which is embodied at the rear of a diaphragm (3). An opening (23) is situated in a surface of the sides (13, 14, 15) delimiting the space (25). The space (25) is so small that the resonance frequency at which the vibrations of the amplifier correspond to those of the diaphragm (3) in terms of amplitude is above 200 Hz (hertz), notably above 1,000 Hz (hertz), and thus in the frequency range of a midrange or high-frequency loudspeaker. The opening (23) is configured such that at each frequency of the low-frequency diaphragm speaker air exits the space at high air speed.

IPC 1-7
   H04R 1/28; H04R 7/04

IPC 8 full level
   H04R 1/02 (2006.01); **H04R 1/20** (2006.01); **H04R 1/28** (2006.01); **H04R 7/04** (2006.01)

CPC (source: EP US)
   H04R 1/2819 (2013.01 - EP US); **H04R 7/04** (2013.01 - EP US)

Designated contracting state (EPC)
   AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
   WO 0038474 A2 20000629; **WO 0038474 A3 20001123**; AT E226781 T1 20021115; AU 2428700 A 20000712; DE 19859046 A1 20000720; DE 19982826 D2 20020103; DE 59903210 D1 20021128; DK 1142445 T3 20030224; EP 1142445 A2 20011010; EP 1142445 B1 20021023; ES 2186434 T3 20030501; JP 2003508937 A 20030304; PT 1142445 E 20030331; US 2002012439 A1 20020131

DOCDB simple family (application)
   DE 9904073 W 19991221; AT 99967891 T 19991221; AU 2428700 A 19991221; DE 19859046 A 19981221; DE 19982826 T 19991221; DE 59903210 T 19991221; DK 99967891 T 19991221; EP 99967891 A 19991221; ES 99967891 T 19991221; JP 2000590429 A 19991221; PT 99967891 T 19991221; US 88662201 A 20010621